

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Gary J. Pond  
Serial No.: 10/820,931  
Filed: 8 April 2004  
For: Irrigation Tip Adaptor for Ultrasonic Handpiece

Group No.: 3732  
Examiner: Melba N. Bumgarner

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL OF APPEAL BRIEF**  
(PATENT APPLICATION 37 CFR 192)

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on 13 September 2007.

NOTE: "THE APPELLANT SHALL, WITHIN 2 MONTHS FROM THE DATE OF THE NOTICE OF APPEAL UNDER S 1.191 IN AN APPLICATION, REISSUE APPLICATION, OR PATENT UNDER REEXAMINATION, OR WITHIN THE TIME ALLOWED FOR RESPONSE TO THE ACTION APPEALED FROM, IF SUCH TIME IS LATER, FILE A BRIEF IN TRIPLICATE." 37 CFR 1.192(A) [EMPHASIS ADDED].

2. STATUS OF APPLICANT  
This application is on behalf of  
☐ other than a small entity  
☐ small entity

3. FEE FOR FILING APPEAL BRIEF  
Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

<input checked="" type="checkbox"/>	small entity	\$255.00
<input type="checkbox"/>	other than a small entity	\$510.00

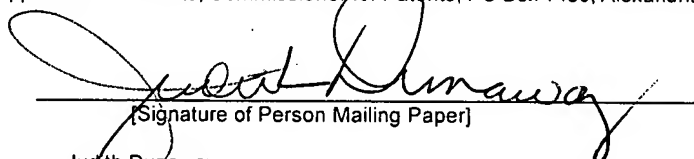
Appeal Brief fee due \$ 255.00

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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail with sufficient postage, in an envelope addressed as follows: Mail Stop Appeal Brief - Patents, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date 13 November 2007

  
[Signature of Person Mailing Paper]  
Judith Dunaway  
[Typed Name of Person Mailing Paper]

4. EXTENSION OF TERM

NOTE: THE TIME PERIODS SET FORTH IN 37 CFR 1.192(A) ARE SUBJECT TO THE PROVISION OF S 1.136 FOR PATENT APPLICATIONS. 37 CFR 1.191(D). ALSO SEE NOTICE OF NOVEMBER 5, 1985 (1060 O.G. 27).

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

(complete (a) or (b) as applicable)

- (a) ☐ Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)(1) - (a)(5)) for the total number of months checked below:

	Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/>	one month	\$ 120.00	\$ 60.00
<input type="checkbox"/>	two months	\$ 460.00	\$230.00
<input type="checkbox"/>	three months	\$1050.00	\$525.00
<input type="checkbox"/>	four months	\$1640.00	\$820.00

Fee \$ \_\_\_\_\_

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

- ☐ An extension for \_\_\_\_\_ months has already been secured and the fee paid therefor of \$ \_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.  
Extension fee due with this request \_\_\_\_\_.

or

- (b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee \$ 255.00.

Extension fee (if any) \$ \_\_\_\_\_.

**TOTAL FEE DUE \$ 255.00.**

6. FEE PAYMENT

☒ Attached is a check in the sum of \$ 255.00.

☐ Charge Account No. \_\_\_\_\_ the sum of \$ \_\_\_\_\_.

A duplicate of this transmittal is attached.

7. FEE DEFICIENCY

NOTE: IF THERE IS A FEE DEFICIENCY AND THERE IS NO AUTHORIZATION TO CHARGE AN ACCOUNT, ADDITIONAL FEES ARE NECESSARY TO COVER THE ADDITIONAL TIME CONSUMED IN MAKING UP THE ORIGINAL DEFICIENCY. IF THE MAXIMUM, SIX-MONTH PERIOD HAS EXPIRED BEFORE THE DEFICIENCY IS NOTED AND CORRECTED, THE APPLICATION IS HELD ABANDONED. IN THOSE INSTANCES WHERE AUTHORIZATION TO CHARGE IS INCLUDED, PROCESSING DELAYS ARE ENCOUNTERED IN RETURNING THE PAPERS TO THE PTO FINANCE BRANCH IN ORDER TO APPLY THESE CHARGES PRIOR TO ACTION ON THE CASES. AUTHORIZATION TO CHANGE THE DEPOSIT ACCOUNT FOR ANY FEE DEFICIENCY SHOULD BE CHECKED. SEE THE NOTICE OF APRIL 7, 1986, 1065 O.G. 31-33.

[ x ] If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 06-2360.

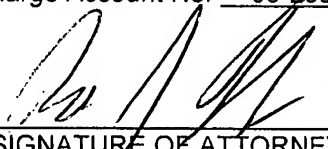
AND/OR

[ x ] If any additional fee for claims is required, charge Account No. 06-2860.

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\_\_\_\_\_  
SIGNATURE OF ATTORNEY

Patrick J. Fleis

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TYPE OR PRINT NAME OF ATTORNEY

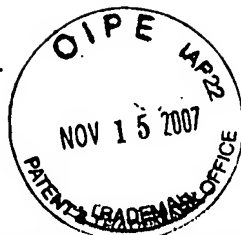
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Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gary J. Pond

Docket No. 4285.18554

Serial No.: 10/820,931

Examiner: Melba N. Bumgarner

Filed: 8 April 2004

Group Art Unit: 3732

Title: Irrigation Tip Adaptor for Ultrasonic Handpiece

**APPEAL BRIEF**  
**TO THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**APPEAL BRIEF**

This Appeal Brief is comprised of the following sections:

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**(i.) REAL PARTY IN INTEREST**

The real party in interest in this case is the inventor, Gary J. Pond, a Wisconsin resident, residing at 2200 Northwestern Avenue, Racine, WI 53404.

**(ii.) RELATED APPEALS AND INTERFERENCES**

There are no related appeals and/or interferences of which the Applicant's attorney is aware at this time.

**(iii.) STATUS OF CLAIMS**

Claims 1-5 and 9 remain in the application and are subject to this appeal.

**(iv.) STATUS OF AMENDMENTS**

The claims presently submitted are the claims that were finally rejected in the Office Action of 16 May 2007. Claim 1 has been amended to address the objection noted in the Office Action of 16 May 2007, specifically addressing the typographical errors in the phrase "matingly connected said handpiece" and amending the phrase to "matingly connected to said handpiece". No amendments have been made on the merits of the claims.

**(v.) SUMMARY OF CLAIMED SUBJECT MATTER**

Currently there are three independent claims presented, claims 1, 5 and 9. Claims 1, 5, and 9 refer to an adaptor for a dental handpiece, which is most specifically depicted in Figures 4 and 7-11 as reference numeral #120, and described most specifically in the specification at page 7, line 12 through page 8, line 3. The device of the present invention provides an adaptor for use with an ultrasonic scaler that will allow the scaler to be used as an irrigation device. Specification page 3, lines 2-9.

The present invention relates to ultrasonic dental scalers and adaptors for ultrasonic dental scalers. *See*, Specification, page 1, lines 4-5 and page 2, line 34 through page 3, line 1. Prior art devices were capable of delivering fluid to a dental work area. Specification, page 2, lines 3-9. However, these devices still deliver ultrasonic energy to the work area. *Id.* Prior art devices and systems that provide irrigation without direct ultrasonic energy required two handpieces, an ultrasonic handpiece and an irrigating handpiece. Specification, page 10-line 32.

The present invention simplifies the need for two separate handpieces by providing an adaptor that can be used with an ultrasonic handpiece to supply irrigation fluid to a dental tip, while limiting the delivery of ultrasonic energy to the tip. Specification, page 3, lines 3-6. The invention provides a simple adaptor of unitary, one-piece construction that directly connects a handpiece to a dental tip (see Figure 4).

Claim 1 reads as follows:

An adaptor (120) for coupling a dental irrigation tip (122) to an ultrasonic dental scaler handpiece (112), said dental scaler handpiece (112) including ultrasonic vibration means, said dental handpiece (112) being connectable to a power source for actuating said ultrasonic vibration means, said irrigation tip (122) including a through bore (135), said dental handpiece (112) including a conduit in fluid communication with a fluid source and in fluid communication with said adaptor (120), said adaptor (120) comprising:

an elongated body having unitary, one-piece construction (120) and having a distal end (see Figure 4) for connection to said irrigation tip (122) and a proximal end (see Figure 4) for connection to said dental handpiece (112), said proximal end securely matingly connected to said handpiece (112), said distal end securely matingly connected to said irrigation tip (122); and

a through bore (133) located within said elongated body (120), said through bore (133) in fluid communication with said conduit (132) of said dental handpiece (112) and said through bore (135) of said irrigation tip (122).

Claim 5 reads as follows:

An adaptor (120) for use with an ultrasonic dental handpiece (112) and a dental irrigation tip (122), said adaptor (120) converting said ultrasonic dental handpiece to a dental irrigation device, said adaptor (120) comprising:

means for connecting said adaptor to said ultrasonic dental handpiece (112);

an elongated body having unitary, one-piece construction (120) and having a through bore (133) for fluid communication between said ultrasonic dental handpiece (112) and said dental irrigation tip (122), said elongated body (120) securely matingly connected to said handpiece (112) and said dental irrigation tip (122); and

means for connecting (137) said adaptor (120) to said dental irrigation tip (122).

Claim 9 reads as follows:

A disposable adaptor (120) for coupling a dental irrigation tip (122) to an ultrasonic dental scaler handpiece (112), said dental scaler handpiece (112) including ultrasonic vibration means, said dental handpiece (112) being connectable to a power source for actuating said ultrasonic vibration means, said irrigation tip (122) including a through bore, said dental handpiece (112) including a conduit in fluid communication with a fluid source and in fluid communication with said adaptor (120), said adaptor (120) comprising:

an elongated body having unitary, one-piece construction (120) and having a distal end (see Figure 4) for connection to said irrigation tip (112) and a proximal end (see Figure 4) for connection to said dental handpiece (112), said proximal end securely matingly connected to said handpiece (112), said distal end securely matingly connected to said irrigation tip (122); and

a through bore (133) located within said elongated body (120), said through bore in fluid communication with said conduit (132) of said dental handpiece and said through bore (135) of said irrigation tip (122).

#### Identification of "Means" Terms

The following "means" terms used in the claims herein are directed to portions of the Specification and drawings as set forth in 37 CFR 41.37(c)(v.), as follows:

Claim 2:

Means for restricting said ultrasonic vibrations. Restriction means generally refers to the arrangement of the adaptor 120 connecting to the handpiece 112, as shown in Figures 4, 5, and 7-11, and discussed in the specification on page 7, line 1-9.

Claim 5:

Means for connecting said adaptor to said ultrasonic handpiece. Connection means generally are described on page 9, line 7 – page 10, line 7 and are shown in Figures 7-11.

Means for connecting said adaptor to said dental irrigation tip. The connecting means is generally shown as reference numeral 137 shown in Figure 4 and support can be found on page 7, lines 23-31

**(vi.) GROUNDS OF REJECTION AND OBJECTIONS TO BE REVIEWED ON  
APPEAL**

The following grounds of rejections and objections are presented for review.

- I. Whether claim 9 should be objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1.
- II. Whether claims 1-5 and 9 fail to comply with the written description requirement of 35 U.S.C. § 112 ¶ 1 by containing subject matter which was not described in the specification.
- III. Whether claims 1-5 and 9 are indefinite under 35 U.S.C. § 112 ¶ 2.
- IV. Whether claims 1, 3-5, and 9 are unpatentable under 35 U.S.C. § 102(a) over Feine, U.S. Pat. No. 6,164,968 (Feine).
- V. Whether claim 2 is unpatentable under 35 U.S.C. § 103(a) over Feine in view of Sharp et al., U.S. Pat. No. 6,086,369 (Sharp).

**Grouping of the Claims**

Claims 1 -5 and 9 stand and fall together. Included in this group are three independent claims, 1, 5, and 9. Each independent claim is directed towards an adaptor from a handpiece to a dental tip, with the adaptor being of one-piece unitary construction. As such the claims stand and fall together.

**(vii.) ARGUMENT**

**I. CLAIM 9 IS NOT A SUBSTANTIAL DUPLICATE OF CLAIM 1 ACCORDING  
TO 37 CFR 1.75.**

Claim 9 was objected to as being a substantial duplicate of claim 1 according to 37 CFR 1.75. Claim 9 is distinguishable from claim 1 in that claim 9 recites that the adaptor is disposable while claim 1 does not require such a limitation. Page 12, line 2-10 of the Specification discusses different types of adaptors. For example, the adaptor could be made of an autoclavable material, a plastic material, a conductive material, i.e. a metal material, or another material. An autoclavable or metal adaptor would not be a disposable adaptor, while a plastic adaptor could be considered a disposable adaptor. As such, claims 1 and 9 do indeed claim different subject matter, and claim 9 should not be objected to over claim 1.



## II. CLAIMS 1-5 AND 9 MEET THE WRITTEN DESCRIPTION REQUIREMENT OF 35 U.S.C. § 112 ¶ 1.

Claims 1-5 and 9 were rejected under 35 U.S.C. § 112 ¶ 1 for failing to meet the written description requirement. Specifically, the claims were rejected for failing to describe the phrase “unitary, one-piece construction” within the specification. Applicant believes the drawings provide adequate description for the phrase. As stated in section 2163 of the MPEP, “an applicant may show possession of an invention by disclosure of drawings ... that are sufficiently detailed to show that applicant was in possession of the claimed invention as a whole.” (citing *Vas-Cath*, 935 F.2d at 1565, 19 USPQ2d at 1118 (“drawings alone may provide a 'written description' of an invention as required by Sec. 112”)). As in *Vas-Cath*, the drawings in the present application provide ample support so that one having reasonable skill in the art would believe that the Applicant had an adaptor having a body of unitary, one-piece construction in his possession at the time the application was filed.

Applicant specifically notes Figure 4, which shows the body (#120) being of unitary, one-piece construction. Also, Figures 7-11 show the body being of unitary, one-piece construction. In fact, there is nothing contrary to a unitary, one-piece construction disclosed within the specification. That is, one having ordinary skill in the art would understand that the disclosure would likely be directed to an adaptor that is of unitary, one-piece construction. As such, claims 1-5 and 9 meet the written description requirement of 35 U.S.C. § 112 ¶ 1.

## III. CLAIMS 1-5 AND 9 ARE NOT INDEFINITE UNDER 35 U.S.C. § 112 ¶ 2.

Claims 1-5 and 9 were rejected under 35 U.S.C. § 112 ¶ 2 for as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as his invention. Specifically, the Examiner stated that it was unclear whether the adaptor is being claimed, or whether the handpiece and tip are intended to be positively claimed.

Applicant asserts that the claims are directed only to the adaptor and are definitely recited as such. When reading the preamble in the context of the claim, the preamble is used to establish the relationship between the adaptor, the handpiece, and the tip. As noted in section 2111.02 of the MPEP, it is necessary to recite language of the preamble again in the body of the claim to distinctly claim the adaptor and also to note the proper spatial relationship and arrangement of the adaptor with respect to the handpiece and the dental tip. The preamble of the claim sets forth the use of the

present invention, i.e., an adaptor for connecting the handpiece to the dental tip, and the body recites the limitations of the present invention, i.e. the adaptor.

The claims, as written, apprise “one having ordinary skill in the art of [their] scope and, therefore, serve the notice function required by 35 U.S.C. § 112 ¶ 2.” *See* MPEP § 2173.02. That is, the claims, as written, would be understood by one of ordinary skill in the art as claiming the adaptor and not the handpiece or the dental tip. The rejection of claims 1-5 and 9 under 35 U.S.C. § 112 ¶ 2 should be withdrawn.

#### **IV. CLAIMS 1, 3-5, AND 9 ARE PATENTABLE UNDER 35 U.S.C. § 102(a) OVER FEINE, US. PAT. NO. 6,164,968.**

Claims 1, 3-5 and 9 were rejected under 35 U.S.C. § 102(a) as being unpatentable over Feine, U.S. Pat. No. 6,164,968. As previously noted in the response filed 16 February 2007 to the Office Action of 16 November 2006, Feine does not disclose an adaptor of unitary, one-piece construction that will directly connect a dental tip to a dental handpiece, which is precisely and specifically what the present invention shows and claims. The present invention is an adaptor for directly connecting a handpiece and a dental tip, without requiring extra adaptor sections or extra inserts.

It is not permissible to “pick and choose” from any single reference to the exclusion of other parts necessary for a full appreciation of what the prior art suggests. *W.L. Gore & Assoc., Inc.*, 721 F.2d 1450 (Fed. Cir. 1983). Feine describes and claims a three-part ultrasonic insert that is used within a handpiece. For instance, the Abstract recites, “a three-part ultrasonic dental insert”. The Summary of the Invention recites, “The present invention is directed to a three-part ultrasonic dental insert...” (Col. 1, lines 65-66). Independent claims 1, 8, and 9 state that the claimed device is a three piece device. All three pieces are required for device. There is nothing shown in Feine that could be considered a one-piece adaptor being of unitary, one-piece construction that securely mates and is connected to a handpiece and a dental tip. As shown in Figure 8, Feine shows a multi-part adaptor, with the main sections being shown as reference numeral #12, #14, and #16 (see Figure 6 for #16). Figure 8 demonstrates that 14 is a separate piece from 12, and, further, that the adaptor also includes an insert 10, that engages a handpiece. See Col. 4, lines 41-45. The adaptor of Feine necessarily includes all of these pieces. Feine does not disclose a unitary, one-piece construction device for directly connecting a dental tip to a handpiece, which is required in each of claims 1, 3-5 and 9. Feine does not anticipate claims 1, 3-5 and 9.

**IV. CLAIM 2 IS PATENTABLE UNDER 35 U.S.C § 103(a) OVER FEINE, US. PAT. NO. 6,164,968 IN VIEW OF SHARP ET AL., U.S. PAT. NO. 6,086,369.**

Claim 2 was rejected under 35 U.S.C § 103(a) as being unpatentable over Feine, U.S. Pat. No. 6,164,968 in view of Sharp, et al., U.S. Pat. No. 6,086,369 (Sharp). Specifically, the Examiner stated that it would be obvious to incorporate the means to restrict ultrasonic vibrations from Sharp into Feine to arrive at claim 2. As stated above, Feine does not disclose a dental adaptor being of unitary, one-piece construction. Neither does Sharp, which discloses a two-piece device (a connecting body 18 and a sleeve 22), as shown in Figure 2. Thus, neither Feine nor Sharp disclose an adaptor being of unitary, one-piece construction, which is required for claim 2, and the combination of the two would not make the adaptor of claim 2 obvious. Feine in view of Sharp does not obviate claim 2.

**Conclusion**

The Examiner seeks to deny patentability on the prior art teachings of Feine and Sharp, et al. Neither of these patents discloses an adaptor being of unitary, one-piece construction, which is a recited element of each of the pending claims. The combination of Feine and Sharp, et al., also does not provide for the claimed construction.

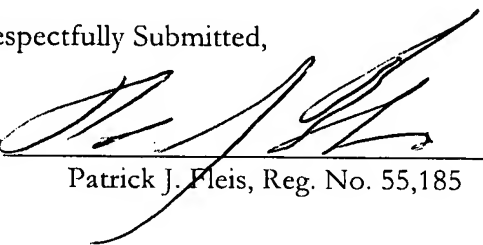
Feine does not anticipate claims 1, 3-5 and 9, and the combination of Feine and Sharp, et al. does not obviate claim 2.

Applicant has noted the support in the specification for the claims as they stand and has further addressed the objections put forth by the Examiner.

Included is the necessary appeal fee. If any additional fees are required, this is a request to charge Deposit Account No. 06-2360.

Respectfully Submitted,

By

  
Patrick J. Fleis, Reg. No. 55,185

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Enclosures: Transmittal of Appeal Brief  
Appendix's 1-3  
Check

**(viii.) CLAIMS APPENDIX**

**Presentation of Claims as Currently Presented**

1. (currently amended) An adaptor for coupling a dental irrigation tip to an ultrasonic dental scaler handpiece, said dental scaler handpiece including ultrasonic vibration means, said dental handpiece being connectable to a power source for actuating said ultrasonic vibration means, said irrigation tip including a through bore, said dental handpiece including a conduit in fluid communication with a fluid source and in fluid communication with said adaptor, said adaptor comprising:

an elongated body having unitary, one-piece construction and having a distal end for connection to said irrigation tip and a proximal end for connection to said dental handpiece, said proximal end securely ~~matingly~~ matingly connected to said handpiece, said distal end securely matingly connected to said irrigation tip; and

a through bore located within said elongated body, said through bore in fluid communication with said conduit of said dental handpiece and said through bore of said irrigation tip.

2. (original) The adaptor according to claim 1 further comprising means for restricting ultrasonic vibrations to said tip.

3. (original) The adaptor according to claim 1 wherein said adaptor is plastic.

4. (original) The adaptor according to claim 1 wherein said adaptor is autoclavable.

5. (previously presented) An adaptor for use with an ultrasonic dental handpiece and a dental irrigation tip, said adaptor converting said ultrasonic dental handpiece to a dental irrigation device, said adaptor comprising:

means for connecting said adaptor to said ultrasonic dental handpiece;

an elongated body having unitary, one-piece construction and having a through bore for fluid communication between said ultrasonic dental handpiece and said dental irrigation tip, said elongated body securely matingly connected to said handpiece and said dental irrigation tip; and

means for connecting said adaptor to said dental irrigation tip.

6 - 8 (cancelled)

9. (previously presented) A disposable adaptor for coupling a dental irrigation tip to an ultrasonic dental scaler handpiece, said dental scaler handpiece including ultrasonic vibration means, said dental handpiece being connectable to a power source for actuating said ultrasonic vibration means, said irrigation tip including a through bore, said dental handpiece including a conduit in fluid communication with a fluid source and in fluid communication with said adaptor, said adaptor comprising:

an elongated body having unitary, one-piece construction and having a distal end for connection to said irrigation tip and a proximal end for connection to said dental handpiece, said proximal end securely matingly connected to said handpiece, said distal end securely matingly connected to said irrigation tip; and

a through bore located within said elongated body, said through bore in fluid communication with said conduit of said dental handpiece and said through bore of said irrigation tip.

**(ix.) EVIDENCE APPENDIX**

1. U.S. Patent No. 6,164,968 – Feine
2. U.S. Patent No. 6,086,369 – Sharp, et al.

**(x.) RELATED PROCEEDINGS APPENDIX**

(NONE)